Lethal Autonomous Robots and the Plight of the Noncombatant

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Abstract: A recent meeting (May 2014) of the United Nations in Geneva regarding the Convention on Certain Conventional Weapons considered the many issues surrounding the use of lethal autonomous weapons systems from a variety of legal, ethical, operational, and technical perspectives. Over 80 nations were represented and engaged in the discussion. This talk reprises the issues the author broached regarding the role of lethal autonomous robotic systems and warfare, and how if they are developed appropriately they may have the ability to significantly reduce civilian casualties in the battlespace. This can lead to a moral imperative for their use, not unlike what Human Rights Watch has attributed regarding the use of precision-guided munitions in urban settings due to the enhanced likelihood of reduced noncombatant deaths. Nonetheless, if the usage of this technology is not properly addressed or is hastily deployed, it can lead to possible dystopian futures. This talk will encourage others to think of ways to approach the issues of restraining lethal autonomous systems from illegal or immoral actions in the context of both International Humanitarian and Human Rights Law, whether through technology or legislation.

Bio: Ronald C. Arkin is Regents' Professor and Associate Dean for Research in the College of Computing at Georgia Tech. He served as STINT visiting Professor at KTH in Stockholm, Sabbatical Chair at the Sony IDL in Tokyo, and in the Robotics and AI Group at LAAS/CNRS in Toulouse. Dr. Arkin's research interests include behavior-based control and action-oriented perception for mobile robots and UAVs, deliberative/reactive architectures, robot survivability, multiagent robotics, biorobotics, human-robot interaction, robot ethics, and learning in autonomous systems. Prof. Arkin served on the Board of Governors of the IEEE Society on Social Implications of Technology, the IEEE Robotics and Automation Society (RAS) AdCom, and is a founding co-chair of IEEE RAS Technical Committee on Robot Ethics. He is a Distinguished Lecturer for the IEEE Society on Social Implications of Technology and a Fellow of the IEEE.

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